

IN THE CLAIMS:

*Please cancel claims 1-19.*

*Kindly add the following new claims 20-44.*

1 ~~20~~ A method for determining a printing state of material on a substrate, comprising:  
printing material onto a required portion of a substrate and a test portion of said substrate,  
wherein said test portion corresponds to an area of said substrate that is at high risk of resulting in  
a defect of said material when printed thereon, and wherein said material is printed onto said test  
portion under a condition that has a high risk of resulting in a defect of said material when printed on  
said test portion; and

judging a printing state of said material printed onto said required portion by inspecting a  
printing state of said material printed onto said test portion.

2 ~~21~~ The method according to claim ~~20~~, wherein printing material onto a required portion of  
a substrate and a test portion of said substrate comprises using a mask such that said material is  
printed onto a specific location of said required portion of said substrate and a specific location of  
said test portion of said substrate.

3 ~~22~~ The method according to claim ~~21~~, wherein using a mask such that said material is printed  
onto a specific location of said required portion of said substrate and a specific location of said test  
portion of said substrate comprises using said mask such that said material is printed onto a specific  
location of a required portion of a circuit board and a specific location of a test portion of said circuit  
board.

4 ~~23~~ The method according to claim ~~22~~, wherein using said mask such that said material is  
printed onto a specific location of a required portion of a circuit board and a specific location of a test  
portion of said circuit board comprises using said mask such that solder paste is printed onto said

specific location of said required portion of said circuit board and said specific location of said test portion of said circuit board.

~~5~~ 24. The method according to claim ~~3~~ 22, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material through an opening in said mask onto said specific location of said test portion that is smaller in size than any opening in said mask through which said material is printed onto said specific location of said required portion.

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~~6~~ 25. The method according to claim ~~5~~ 24, wherein using said mask such that said material is printed onto a specific location of a required portion of a circuit board and a specific location of a test portion of said circuit board comprises using said mask such that solder paste is printed onto said specific location of said required portion of said circuit board and said specific location of said test portion of said circuit board.

~~7~~ 26. The method according to claim ~~5~~ 24, wherein inspecting a printing state of said material printed onto said test portion comprises inspecting said printing state of said material printed onto said test portion by using one of an optical detection device and X-rays.

~~8~~ 27. The method according to claim ~~5~~ 24, wherein said test portion corresponds to an area of said substrate that is at high risk of resulting in a defect of said material when printed thereon by corresponding to an area of said circuit board that is located outside of said required portion and along a peripheral edge of said circuit board.

~~9~~ 28. The method according to claim ~~5~~ 24, further comprising changing a printing parameter when judging a printing state of said material printed onto said required portion results in judging said printing state to be defective.

<sup>10</sup>  
29. The method according to claim <sup>2</sup>~~21~~, wherein said test portion corresponds to an area of high risk by corresponding to an area of said substrate that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon.

<sup>11</sup>  
30. The method according to claim <sup>10</sup>~~29~~, wherein said test portion corresponds to an area of said substrate that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon by corresponding to an area of said substrate that is located outside of said required portion and along a peripheral edge of said substrate.

<sup>12</sup>  
31. The method according to claim <sup>11</sup>~~30~~, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion.

<sup>13</sup>  
32. The method according to claim <sup>12</sup>~~31~~, wherein said material is printed under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion by printing said material through an opening in said mask onto said specific location of said test portion that is smaller in size than any opening in said mask through which said material is printed onto said specific location of said required portion.

<sup>14</sup>  
33. The method according to claim <sup>10</sup>~~29~~, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of

said material when printed on said test portion than is a condition under which said material is printed on said required portion.

<sup>15</sup>  
~~34~~. The method according to claim <sup>2</sup>~~21~~, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion.

<sup>16</sup>  
~~35~~. The method according to claim <sup>15</sup>~~34~~, wherein said material is printed under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion by printing said material through an opening in said mask onto said specific location of said test portion that is smaller in size than any opening in said mask through which said material is printed onto said specific location of said required portion.

<sup>17</sup>  
~~36~~. The method according to claim <sup>16</sup>~~35~~, wherein said test portion corresponds to an area of high risk by corresponding to an area of said substrate that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon.

<sup>18</sup>  
~~37~~. The method according to claim <sup>1</sup>~~20~~, wherein said test portion corresponds to an area of high risk by corresponding to an area of said substrate that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon.

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~~38.~~ The method according to claim ~~37~~<sup>18</sup>, wherein said test portion corresponds to an area of said substrate that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon by corresponding to an area of said substrate that is located outside of said required portion and along a peripheral edge of said substrate.

20 19  
~~39.~~ The method according to claim ~~38~~<sup>19</sup>, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion.

21 20  
~~40.~~ The method according to claim ~~39~~<sup>20</sup>, wherein said material is printed under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion by printing said material onto a location of said test portion that is smaller in size than any location of said required portion onto which said material is printed.

22 18  
~~41.~~ The method according to claim ~~37~~<sup>18</sup>, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion.

23 1  
~~42.~~ The method according to claim ~~20~~<sup>1</sup>, wherein said material is printed onto said test portion under a condition that has a high risk of resulting in a defect of said material when printed on said test portion by printing said material under a condition that is at a higher risk of resulting in a defect of

said material when printed on said test portion than is a condition under which said material is printed on said required portion.

*24*  
*23*  
*43*. The method according to claim *42*, wherein said material is printed under a condition that is at a higher risk of resulting in a defect of said material when printed on said test portion than is a condition under which said material is printed on said required portion by printing said material onto a location of said test portion that is smaller in size than any location of said required portion onto which said material is printed.

*25*  
*24*  
*44*. The method according to claim *43*, wherein said test portion corresponds to an area of high risk by corresponding to an area of said circuit board that is at a higher risk of resulting in a defect of said material when printed thereon than is said required portion when said material is printed thereon.

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